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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/159,817	09/23/1998	ELLEN K. WESEL	PD-980189	5596

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PATENT DOCKET ADMINISTRATION RE/R11/A109  
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EXAMINER

GESESSE, TILAHUN

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/159,817

**Applicant(s)**

WESEL, ELLEN K.

**Examiner**

Tilahun B Gesesse

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This is in response to reversal decision of appeal and interference filed May 19,2004, in which claims 1-10 are pending.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2,5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Araki et al "Araki" (5,543,813).

As to claim 1, Araki teaches a satellite system (33 and 32) operating over a land mass (a land mass 10 figures 3-4 and 7) comprising:

a first satellite (33) generating a first plurality of spot beams directed at the land mass (plurality of beam directed to land mass (33-1-33-5) , the first set of spot beams partially covering the land mass (33-1-33-5 set of spot beams partially covered the land mass 10, figures 3-4 and 7, column 4, lines 28-47 and column 5, lines 29-49).

a second satellite (32) generating a second plurality of spot beams, at land mass (spot beams 33-6 and 33-7 of figure 3-4 and 7 column 4, lines 28-47 and column 5, lines 29-49).

the first plurality of spot beams and the second plurality of spot beams in combination provides substantially ubiquitous coverage over the land mass ( first set of spot beams 33-1 to 33-5 and the second plurality of spot beams 33-6 and 33-7 in

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combination provides substantially ubiquitous (Being or seeming to be everywhere at the same time; omnipresent: *"plodded through the shadows fruitlessly like an ubiquitous spook"*<sup>1</sup>) coverage over land mass (the coverage of the land masse 10 in combination of spot beams first satellite and second satellite is substantially ubiquitous , see column 4, lines 28-47 and column 5, lines 29-49 and figures 3-4 and 7).

As to claim 2, Araki teaches the first satellite and the second satellite are selected from the group consisting of a MEO, a GEO, IGSO (Medium earth orbiting and low earth orbiting, and geo-synchronous orbiting, column 1, lines 14-30).

As to claim 5, Araki teaches a plurality of re-configurable spot beams (position of mobile terminal 1, is estimated by computing facility 5, to determine the location of mobile terminal at T , T+1 and T+2 and the orbiting information of satellite computed coverage area 30-7 radiated by the spot beam with BID, based on the computation spot beams are reconfigured, (column 4, lines 9-27 and figures 2 and 3).

As to claim 6, Araki teaches a first spot beam (33-1 to 33-5 directed at a first area (10) and a second spot beam (32-6 to 32-7) directed substantially to the first area (10) (column 4, lines 28-47 and column 5, lines 29-49 and figures 3 and 7).

As to claim 7, at least one of the first plurality of spot beams (33-1 to 33-5) having a plurality of beam segment portions (plurality of covered portion of the land mass, figure 3, column 4, lines 30-47).

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<sup>1</sup> The American Heritage® Dictionary of the English Language, Third Edition copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al in view of Hargis (6,009,306).

As to claims 3-4, Araki et al discloses the spot beams are V band and the spot beams are K band.

However, Hargis discloses the spot beams are V band and the spot beams are K band (column 3, lines 1-8 and column 5, lines 10-13 and figure 3). Therefore, it would have been obvious to one of ordinary skill in the art to combine Araki and Hargis in utilizing v and k bands , as taught by Hargis, since such bands are advantageous in tolerating interference, such as rainfall and growing communication traffics.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al in view of Diekelman (5,612,701).

As to claim 8, Araki does not expressly teach independently adjustable in response to a condition.

However, Diekelman discloses adjust the beam (column 8, lines 45-62 and figure 13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Araki and Diekelman in adjusting the beam in response required coverage of the land mass at the ground for communicating the mobile station in the area.

7. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki in view of Diekelman as applied to claim 8 above, and further in view of Hargis (5,612,701).

As to claims 9-10, Araki in view of Diekelman do not expressly disclose the condition is rain and traffic. However, Hargis teaches condition is rain and traffic (column 3, lines 1-8). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Araki, Diekelman and Hargis in adjusting the beam during rain and traffic condition , as taught by Hargis , in order to avoid traffic and rain condition is bad.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rouffet et al (5,410,731) teaches plurality of satellites (S1 and S2) having plurality of spot beams, to cover a land mass (between ground stations 5 and 6). Rouffet et al teach first satellite (S1) partially cover the land mass by covering spot masses (T1 and T2) of the whole land mass and satellite S2 utilizes plurality of spot beams (T1 and T2), spot beams cover combined substantially ubiquitous. Figure 1 and its disclosure.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 703-308-5873. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tilahun Gesesse  
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TILAHUN GESESSE  
PATENT EXAMINER

July 27, 2004

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